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ABSTRACT

The present study was conducted to determine whether independence produced by social support provided on one type of item in a group pressure situation would generalize to a different item on which the subject was opposed by a consensual group. Moreover, in one condition the group member providing social support varied over trials. It was predicted that this would result in lower conformity than when only one person repeatedly agreed with the subject. Subjects were 180 female undergraduates who were tested in groups using a Crutchfield kind of apparatus. Results showed that social support, i.e., the presence of a partner answering immediately prior to the subject, significantly reduced conformity on both visual and opinion items. Type of social support was differentially effective only for opinion items. Generalization of independence from social support to consensual group trials was not obtained. (Author)

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TECHNICAL REPORT NO. 109

GENERALIZATION OF INDEPENDENCE PRODUCED BY SOCIAL SUPPORT

REPORT FROM THE PEER GROUP PRESSURES ON LEARNING PROJECT

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WISCONSIN RESEARCH AND DEVELOPMENT

CENTER FOR COGNITIVE LEARNING

THE UNIVERSITY OF WISCONSIN
Madison, Wisconsin

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Technical Report No. 109

GENERALIZATION OF INDEPENDENCE PRODUCED BY SOCIAL SUPPORT

By Vernon L. Allen and Ehor O. Boyanowsky

Report from the Peer Group Pressures on Learning Project
Vernon L. Allen, Principal Investigator

Wisconsin Research and Development
Center for Cognitive Learning
The University of Wisconsin
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This Technical Report is from the Peer Group Pressures on Learning Project in Program 1. General objectives of the Program are to generate new knowledge about concept learning and cognitive skills, to synthesize existing knowledge, and to develop educational materials suggested by the prior activities. Contributing to these program objectives, this project is directed toward identification of the effects of peer group pressures on the utilization of concepts already learned and on the learning of new concepts.

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ABSTRACT

The present study was conducted to determine whether independence produced by social support provided on one type of item in a group-pressure situation would generalize to a different item on which the subject was opposed by a consensual group. Moreover, in one condition the group member providing social support varied over trials. It was predicted that this would result in lower conformity than when only one person repeatedly agreed with the subject. Subjects were 180 female undergraduates who were tested in groups using a Crutchfield kind of apparatus. Results showed that social support, i. e., the presence of a partner answering immediately prior to the subject, significantly reduced conformity on both visual and opinion items. Type of social support was differentially effective only for opinion items. Generalization of independence from social support to consensual group trials was not obtained. Because no generalization took place in the varied social support conditions, it appears less likely that either following behavior on the part of the subject, or feelings of being abandoned by a partner, fully account for the results.

I
INTRODUCTION

How can independence be instilled in a person within a group-pressure situation so that he can resist future influence attempts when he finds himself confronted with a unanimous majority? That such a question obviously has more than purely theoretical value is exemplified by the film "Twelve Angry Men." In it, the protagonist, in the face of strong pressure from the other jurors to reach a quick verdict of conviction on the first ballot, casts the lone dissenting vote, thereby forcing a more analytical appraisal of the evidence which leads to the acquittal of the defendant.

The profound effect of social support—having a partner—on reducing conformity behavior in group-pressure situations led Asch (1955) to predict that subjects who received support on the first half of the series would be independent when alone in the second half. Contrary to expectations, in the second half subjects increased errors to 28.5% from the previous 5.5% in the first half of the series. Thus, the effect of prior public commitment to a course of action (i.e., independence) did not forestall an abrupt change in the nature of the subject's judgments. Asch attributed this to the subject's feelings that his partner had "deserted" to the majority. In another variation when the partner was forced to leave the room on a previously announced pretext, subjects again switched to the majority but not to so marked a degree (Asch, 1955).

Allen and Bragg (1968) sought to determine whether independence resulting from social support would generalize to items of different content when the subject was opposed by a unanimous group. Thus, they conducted a study in which opinion, visual, and information items were included in the stimulus series.

One consensual group condition and four social support conditions were established. In the Consensual condition the subject faced a unanimous group on all critical items (24 trials in a series of 57). In three of the Social Support Conditions the subject was given social support in the form of a modal response from Person No. Four on the first six of eight critical trials of one type of item. On the other 16 critical trials, consisting of items of different content, the subject faced a unanimous group. In this way it could be determined whether independence resulting from social support on one type of item (e.g., opinion) would generalize to items of different content (e.g., information and visual). Also, it could be determined whether independent responding produced by social support on the first six trials of one type of item generalized to the last two critical trials of that type of item. In the fourth Social Support condition a partner was provided on the first six critical trials of all three types of items; consequently, in this condition only generalization within the same type of item could be investigated.

Results showed that conformity was reduced on social support trials for visual and opinion items but had no significant effect on information items. In testing for cross-content generalization, only slight, nonsignificant effects were obtained. Interestingly, some significant within-type-of-item generalization effects were noted in the one social support condition where a partner was provided on all three types of items.

Several alternative explanations can be offered for the lack of generalization of independence across item content. It is possible that the frequency of social support trials was too low or the proportion too small to have been noticed by the subject. In the three Social Support Conditions relevant to testing for cross-content generalization, the subject had a supporter on only 6 of 57 items.

A second, related factor is that a certain absolute number of social support trials may be needed to produce the habit strength or commitment to independent responding necessary for cross-item generalization to take place. In Allen and Bragg's (1968) study the number of social support trials reinforcing such commitment through repeated occasions of independent behavior may not have been sufficient. Some evidence for these two explanations is found in the condition in which

social support was provided on all three types of items, a total of 18 trials (versus 6 in the other Social Support conditions). In this condition, where the presence of social support is less likely to have gone unnoticed by the subject, generalization across item content could not be determined. It is suggestive, however, that some significant within-item generalization effects were noted.

Third, it is possible that the social supporter becomes an alternate source of influence for the subject. As a result, the subject conformed to the supporter's responses and followed him whenever he agreed with the group.

As a fourth explanation, there is the possibility that the supporter may have produced actual independent responding in the subject by providing an independent assessment of reality by which the subject could validate his own judgments. But when the supporter began to agree with the group the subject felt abandoned and so began to conform to the group.

A fifth possibility derived from cognitive theory (Crutchfield, 1955) is that people respond in a rational, situation-specific manner. That is, through past experience the subject has learned that the consensus of a majority can be usually relied upon to represent an accurate assessment of reality in such matters. Thus, unless there is good reason for doubting such a consensus (e.g., the presence of a social supporter), he will rely upon the group and conform. It follows that generalization across item content seldom or never occurs.

Having considered the alternative explanations for Allen and Bragg's (1968) results, a study was designed to test some of the most plausible hypotheses. It was expected that cross-item content generalization of independence would occur if: (a) the proportion of social support trials were sufficiently large so that the subject could not fail to notice the presence of a partner and (b) the absolute number of social support trials were sufficiently great to create commitment to independent responding under group pressure.

Furthermore, it was felt that the creation of a single alternate source of influence could be avoided by having different people agree with the subject through the series of social support trials. Such a condition also would test the "feeling abandoned" hypothesis.

A study was designed in which a high percentage of the trials in the series (50%) were social support trials. To insure that social support would be noticed, 7 of the first 10 items in the 21-item series were social support trials. Concomitantly, the absolute number of social support trials was increased from 6 in the Allen and Bragg study (1968) to 10 in the present experiment to promote more repetitions of independent responding by the subject.

Two forms of social support were established. In one form the partner was always the person answering fourth, immediately prior to the subject, who answered last. In the other form of social support the partner varied from trial to trial, so that eventually each person in the group agreed with the subject on approximately equal number of critical trials. The same total number of trials with a partner was provided in both forms of social support.

Following are the four hypotheses tested and the rationale for each prediction:

(1) Conformity will be significantly lower when social support is given than when there is group consensus on the same items.

This hypothesis is made on the basis of findings from several previous studies (Asch, 1951, 1955; Allen & Levine, 1968a; Allen & Bragg, 1968).

(2) Conformity will be lower if the social supporter is a different group member from trial to trial than when the same person provides support throughout.

Varying the social supporter will result in the rejection of the group as a reliable standard of reality because there will be little consensus on judgments by the group during the series of trials. The group members will be more inconsistent in their judgments overall than the subject. In addition, by agreeing with the subject individually, the various group members provide multiple independent assessments of reality. But when the subject has only one supporter, the assessment of reality provided is peculiar to a single person.

(3) Independence produced by social support will generalize to items differing in content.

When social support is provided frequently enough so that it is noticed by the subject, there will occur a cognitive restructuring or reinterpretation of the group situation so that the subject comes to rely less on the group's judgments. This results in independent responding. Moreover, if the frequency of social support trials is high enough, the subject's repeated independent responses will strengthen commitment to an independent course of behavior in the group situation. This will likewise result in independent responding when he is faced by a unanimous group.

(4) Generalization of independence should be greater for subjects who have received support from different persons over critical trials than for subjects who have received social support from only one person.

The presence of a person who makes responses congruent with the subject's private judgments may establish this social supporter as an alternate source of influence for the subject, so that rather than responding in a purely independent fashion, he follows the supporter. This would preclude independent responding by the subject when the social supporter agreed with the group. However, if the social supporter were not always the same person, it is less likely that an alternate source of influence would be established and the subject should be more independent when opposed by a consensual group.

II
METHOD

SUBJECTS

The subjects were 180 female undergraduates enrolled in an introductory psychology course at the University of Wisconsin. The data from 18 subjects were discarded because their responses on a post-experimental questionnaire indicated awareness of the experimental deception. Attrition rate was relatively equal across conditions, leaving a total of 162 subjects.

Subjects were obtained from a common pool. They signed up for participation in the experiment without prior knowledge of its nature. For doing so they received credits applicable to their grade in the course. Five subjects were always tested together.

APPARATUS

The apparatus was a Crutchfield kind of electrical signaling device described in detail by Tuddenham, et al. (1956). It is comprised of five adjacent booths containing signal lights and answer switches, a master control panel situated in an adjoining room, an intercom, a slide projector operated by remote control, and a projection screen. In the testing room the booths were arranged laterally so that they faced the screen at the front. The construction of the booths was such that each subject could see only his own display panel and the screen mentioned above. Each display panel was an 18-inch square on which were mounted five rows of nine green lights. One red light was located immediately to the left of each row of green lights. Below the signal lights were nine toggle switches. Each of these was situated below one of the nine columns of green lights. The switches were labeled on a continuum ranging left to right from "Very Strongly Disagree" to "Very Strongly Agree."

The master control panel, housed in a control room immediately adjacent to the testing room, was a device that enabled the experimenter to produce simulated responses on the subjects' display panels. A Kodak Carousel slide projector controlled electrically by the experimenter was positioned against the wall behind the booths. The projection screen measuring 5 feet by 4 feet was centered before the front wall, 5 feet above the floor and approximately 12 feet beyond the row of booths.

PROCEDURE

Typically, in the experimental procedure five subjects are seated at random in the booths and instructed to respond to stimuli projected on the screen. The subjects are led to believe, by instructions and practice trials, that the green lights in their booths represent the responses of the four other persons in the group. Explanations are given by the experimenter to the effect that the order in which subjects are to respond in the experiment is randomly determined but, once established, remains constant throughout. Thus they are led to believe that one of the group always answers first; another, second; etc., and that she, the subject, has been assigned the fifth response position. Her answering position is indicated by the glowing of the appropriate red light on her panel. In actuality, lights in all booths are controlled by the experimenter from the master control panel.

Unknown to the subject, each person in the group does not answer in one of the five positions; rather, all are made to answer fifth on all trials. The first four responses on each trial are simulated answers produced by the experimenter. In this way, the experimenter is able to present simulated group responses that agree or disagree with subjects' private judgments.

Upon being seated in their booths, subjects were instructed to make accurate judgments on visual perception and opinion items projected on the screen. Instructions were intended both to familiarize subjects with the apparatus and to convince them that it functioned as described. Subjects were told that green lights on their display panels indicated the responses of other subjects, each of whom answered in a different

position. Use of the apparatus was explained and subjects were cautioned to respond in order. Four practice trials were given in order to convince subjects of the credibility of the experimental description of the apparatus. During these practice trials subjects did answer in different positions and saw the true responses of one another. In addition, they were instructed to call out their answers aloud, thereby providing further verification that the lights corresponded to the group members' responses. Subjects were then advised that during the actual experimental series they would maintain the same answering position throughout. After the first two practice trials the experimenter withdrew to the control room. From there he conducted the last two practice trials and the actual experimental series. He read the questions over the intercom and operated the slide projector by remote control. In the experimental series, the experimenter simulated the first four responses and then all the subjects—each under the impression that he alone had yet to answer—responded in the fifth position.

Upon completion of the experimental series, the experimenter reentered the testing room and administered a post-experimental questionnaire. The questionnaire was designed to determine: (a) whether the subjects were aware of the deception inherent in the experimental manipulations and (b) whether they perceived anyone in the group to have agreed with them more than the others.

Following the completion of this questionnaire, the experiment was discussed by the experimenter with the group as a whole. Through the course of the discussion the purpose of the experiment and the nature of the deceptions employed were fully revealed to the subjects. Their agreement not to discuss the experiment with others was secured and they were dismissed.

STIMULUS SERIES

Items were selected from the item pool developed by Tuddenham, MacBride, and Zahn (1956). They were of two types: visual perception and opinion. Visual perception items required judgments of physical relationships. Examples include matching the length of a standard with nine numbered comparison lines or determining which of nine quadrangles was a square. Opinion items asked for the degree of agreement or disagreement with statements such as "I cannot do anything well," or "Most young people get too much education." For both types of items subjects answered by manipulating one of nine switches which were numbered 1 to 9 for use with visual items, and labeled on the disagreement-agreement continuum for use with opinion items.

Two orders of stimulus series were used, so that generalization of independence to both types of items could be investigated. Subjects were tested using only one series: Visual Social Support or Opinion Social Support. Each series contained 21 trials of which there were 10 critical (group pressure) items of one type and five critical items of the other type. The remaining six trials consisted of neutral (filler) items—three of each type of item. On the neutral trials the group gave veridical or modal responses. On both the critical and filler items the simulated group was unanimous approximately half the time and varied slightly on the other half of the trials. Variation among the group on these trials never exceeded one scale point.

The two stimulus series were divided into three blocks of seven items. In the Visual Social Support series, the first block contained five critical visual items and two neutral visual items. The second block contained four critical visual items plus two critical opinion items and one neutral opinion item. The third block contained one critical visual item, three critical opinion items, and three neutral items. Thus, in the Visual Social Support series, there were 10 critical visual items and 5 critical opinion items. Moving from Block One to Block Three, the critical visual items decreased in number while the critical opinion items decreased. In the Opinion Social Support series the proportion of critical items of each type within each block was reversed so that overall there were 10 critical opinion items and 5 critical visual items.

STIMULATED GROUP NORM

On critical items, the norm of the group (majority) was established at two scale points beyond the 95th percentile of responses given by a standardization group. On visual items the norm was derived from the standardization groups tested by Tuddenham, MacBride, and Zahn (1956). On opinion items the norm was based on data collected from 300 University of Wisconsin undergraduate students.

DESIGN

The experimental treatments manipulated the presence and type of social support provided on one type of item in a series. The three experimental conditions established in each of the two stimulus series were Consensus, Same Social Support, and Varied Social Support. In

the Consensus condition the group of four simulated subjects gave extremely incorrect or unpopular responses on all critical trials of visual and opinion items. In the Social Support conditions, one person differed from the rest of the group on each of the 10 critical trials of one type of item by giving the popular or modal response. In the Same Social Support condition the response always came from the simulated group member answering fourth. In the Varied Social Support condition, the same frequency of social support trials was maintained, but the social supporter was not the same person from trial to trial. The group member answering first gave support on three trials; the second person gave support on two other trials; the third, also on two; and the fourth, three times to make the same total of 10 social support trials. No social support was given in any condition on the five critical trials of the other type of item. This was done to determine whether independence produced on the social support trials would generalize to items of different content on which the subject faced a unanimous group.

In the Opinion Social Support series the 10 critical social support trials all consisted of opinion items and the five critical group consensus trials were all visual items. In the Visual Social Support series the 10 social support trials were all visual items and the five critical group consensus trials were opinion items. Accordingly, 7 of the first 10 trials in each series consisted of critical items receiving social support while the other three items were fillers. Thus, in the Social Support conditions the subject did not encounter a group unanimously opposed to him until the 11th trial. Other critical group consensus items followed on Trials 14, 16, 20, and 21.

In summary, there were two stimulus presentation series: Opinion Social Support and Visual Social Support. Within each series three conditions were established: Consensus, Same Social Support, and Varied Social Support.

METHOD OF ANALYSIS

For each subject a conformity score was calculated for each type of item, i.e., opinion and visual. This was done by summing the subject's responses across all the critical trials by type of item, producing two separate scores. That is, the conformity score for the type of item receiving social support was obtained by summing across 10 trials; the conformity score for the generalization item was obtained by summing across five trials. Four 3 x 1 analyses of variance were computed using these conformity scores. Two analyses were conducted on the Opinion Social Support series, one to test for the effects on conformity of social support on opinion items, and the second to determine whether generalization of independence to visual items occurred. Two other analyses were done on the Visual Social Support series to determine the effects of social support on conformity for visual items and whether independence generalized to opinion items.

III
RESULTS

PERCEPTION OF SOCIAL SUPPORT

Central to the purpose of the experimental manipulations was that subjects notice the presence of social support. A question bearing on this was asked in the post-experimental questionnaire. As expected, none of the subjects in the Consensus condition perceived any one person to have agreed with them more than the other group members (Table 1).

By contrast, in the Same Support conditions a high percentage of subjects reported that Person No. 4 agreed with them most: 83% in the Visual Social Support series and 86% in the Opinion Social Support series. In the Varied Social Support conditions the majority of subjects did not perceive any single person to have agreed with them most (80% and 85%) but a few subjects distributed their choices among the first three group members. Thus, most subjects in the Varied Support conditions responded by checking "no single person," as did all subjects in the Consensus conditions. However, post-experimental questioning revealed that subjects in the Varied conditions saw "several persons" agreeing with them equally often, whereas subjects in the Consensus condition claimed that no one agreed with them very frequently. Thus the similarity of their responses can be attributed to the wording of the question rather than to actual perception of social support.

CONFORMITY SCORES

Two separate analyses of variance were computed for subjects' scores in the Visual Social Support series and two others for the

Table 1

Percentage of Subjects Perceiving Most Frequent Agreement with Each Group Position

A. Visual Social Support Series

Condition	Position of Social Supporter				
	1	2	3	4	No Single Person
Consensus	-	-	-	-	100
Same S.S.	-	-	-	83	17
Varied S.S.	10	5	5	-	80

B. Opinion Social Support Series

Condition	Position of Social Supporter				
	1	2	3	4	No Single Person
Consensus	-	-	-	-	100
Same S.S.	-	-	-	86	14
Varied S.S.	5	5	5	-	85

scores of subjects in the Opinion Social Support series. From these analyses appropriate error terms were obtained for comparing the differences between cell means by Fisher LSD (Least Significance Difference) tests. Comparisons were made to determine: (a) whether social support effectively reduced conformity on those items on which it was provided and (b) whether generalization of independence occurred to items of different content not receiving social support.

EFFECTS OF SOCIAL SUPPORT

A necessary pre-condition for testing the generalization hypothesis was that social support effectively reduced conformity on those items on which it was provided. An F test shows significant differences among the three conditions for visual items in the Visual Social Support series ($F = 7.77$, $p < .001$). A subsequent Fisher LSD test revealed that conformity in both the Same Support and Varied Support conditions was significantly lower than in the Consensus condition ($p < .01$). However, contrary to prediction, conformity was slightly higher in the Varied Social Support condition than in the Same Support condition (Table 2, Column 1). It appears that social support significantly reduced conformity on visual items but varying the partner on each trial proved no more effective than repeatedly providing the same partner. The slight difference between the Same and Varied Social Support conditions proved not to be statistically significant.

An F test performed on conformity scores of opinion items in the Opinion Social Support series indicated significant differences among the three conditions ($F = 15.42$, $p < .001$). A Fisher LSD test confirmed that conformity in the Same Support condition was significantly lower than in the Consensus condition ($p < .01$) and, furthermore, that conformity in the Varied Support condition was significantly lower than in the Same Support condition. Thus, the prediction that varying the source of social support would be even more effective in reducing conformity than a single supporter was confirmed on opinion items.

Summarizing the social support results, it can be said that social support effectively reduced conformity on both types of items and that type of social support (one supporter versus varied supporters) was differentially effective for opinion items but not for visual items.

GENERALIZATION OF INDEPENDENCE

Since it has been established that conformity was significantly reduced on social support trials, we can now observe whether generalization of independence occurred to a different type of item in each series on which no social support was given.

As shown in Table 3, conformity scores on opinion items in the Visual Social Support series were actually higher in the social support conditions than in the Consensus condition. Differences among the means were insignificant. We can conclude, therefore, that no generalization of independence from visual items to opinion items took place.

Similarly, no statistically significant differences existed among the three conditions in the Opinion Social Support series. Although mean conformity on visual items in the Varied Social Support condition was somewhat higher than in either of the other conditions (Table 3, Column 2), the increase did not reach significance. Thus, no generalization of independence from opinion items to visual items took place.

Another way of viewing the generalization results is by comparing items of a given type that received social support with items of the same type that did not. From an analysis of

Table 2

Mean Conformity on Items Receiving Social Support in Each Series

Conditions	Stimulus Series: Visual Social Support (Visual Items)	Stimulus Series: Opinion Social Support (Opinion Items)
Consensus	37.17	27.11
Same S.S.	33.37	23.82
Varied S.S.	34.33	20.48

Table 3

Mean Conformity on Group Consensus Items
within each Series (Generalization)

Condition	Stimulus Series: Visual Social Support (Opinion Items)	Stimulus Series: Opinion Social Support (Visual Items)
Consensus	14.83	18.04
Same S.S.	16.30	17.59
Varied S.S.	16.33	19.00

mean conformity scores a significant effect emerged for visual items ($F = 7.15$, $p < .01$) and for opinion items ($F = 8.75$, $p < .001$). These results indicate that when, for example, visual items received social support, conformity was reduced but when visual items did not receive social support, conformity was high.

In summarizing the results, it can be said that:

(1) Social support significantly reduced conformity on both types of items, opinion and visual.

(2) Nature of the social support was differentially effective according to type of item. That is, for opinion items, when the group member agreeing with the subject was not always the same person from trial to trial, the subject was more independent than when only one person consistently agreed with her. For visual items whether the partner was always the same person or varied from trial to trial made no difference.

(3) Generalization of independence did not occur from visual to opinion items nor from opinion to visual items. That is, after having consistently received social support and, as a result, having responded independently on one type of item, the subject conformed to the majority when faced with a consensual group on items of a different type.

IV
DISCUSSION

The four predictions made in the present study will be discussed in light of the results obtained.

(1) It was predicted that conformity would be significantly lower when the subject was provided with a social supporter than when she faced a unanimous group on the same items. This prediction, made on the basis of previous findings, was borne out by the results for both opinion and visual items.

The significant reductions in conformity obtained were important primarily because they were necessary for testing generalization of independence across items.

(2) The second prediction was that conformity would be lower when the person providing social support varied from trial to trial than when the same person provided support throughout. Results confirming this hypothesis were found for opinion items, but not for visual items. The prediction rested on the assumption that when given support by several persons the subject would perceive group consensus to be less than when only one person repeatedly provided support. In addition, subjects would be provided with multiple private independent assessments of reality, validating their own private judgments.

The finding that type of social support had a differential effect on opinion items but not on visual items is noteworthy. It can be reasonably speculated that people expect a high degree of consensus in judgments involving matter of physical reality such as visual perception. Therefore, a unanimous group is an acceptable standard to the subject to use in making his judgments of the stimuli. On the other hand, when a dissenter consistently provides an alternative standard for measuring reality—a standard more congruent with the subject's personal judgment—the dissenter's response is adopted by the subject as the standard by which to validate her judgment. The dissenter's response on objective items is used much in the way a carpenter uses a ruler he had found to be reliable. Varying the source of social support would not increase the subject's confidence in any single partner on a given trial. By agreeing with the group on some trials and with the subject on others, each partner gives the impression of some uncertainty of judgment. This is analogous to the carpenter being provided with a different ruler for every measurement he makes: he will be no more certain of any of his measurements as a result of having different rulers.

By contrast with objective items, less consensus is expected in matters of social reality. In fact, the confidence with which an individual holds an opinion is usually highly related to the number of people in his reference group who share his viewpoint (Festinger, 1950). Thus, the more people agreeing with an individual, the more confident she is; the fewer agreeing with an individual, the more uncertain she becomes of her judgment. It follows that when the social supporter varies, the subject has greater support for her responses on opinion items.

Alternatively, it may be speculated that because the partner varies from trial to trial, the subject can give her exact, private viewpoint on any opinion item without appearing to follow slavishly any one person in the group. This is important because Vinacke (1959) has shown that females do not like to be perceived as forming coalitions in group situations. In order to be accommodative they may give compromise answers falling between those of the group and the social supporter. When the supporter varies, the subject can respond independently without fear of being perceived to be forming a coalition with any particular social supporter. This latter explanation, however, cannot account for the differential effect of type of social support on opinion and visual items.

(3) It was predicted that independence produced by social support would generalize to items of different content on which the subject was opposed by a unanimous group. Results did not confirm this hypothesis. No generalization across item content was found in either social support condition. The subjects did

respond independently on trials on which social support was provided, yet, when opposed by a consensual group on items of different content, the conformity level was comparable to the Consensual condition. These results confirm the findings of Allen and Bragg (1968), who attempted generalization of independence across item content. The results show that the lack of generalization in Allen and Bragg's study cannot be attributed to the small proportion of social support trials not being noticed by the subject. In the present study social support trials comprised 50% of the stimulus series. Furthermore, responses on the post-experimental questionnaire confirmed that most subjects in the Same Support condition clearly perceived the presence of the social supporter.

It is clear that social support does not cause the subject to reorganize his cognitions regarding the group situation in such a way as to cause general independence from the group. Also, it is evident that increasing the frequency and absolute number of social support trials, which gives the subject more experience in behaving in a noncompliant manner, does not enhance independence when facing the group alone.

(4) The final prediction was that generalization of independence would be greater for subjects who had been provided with varied social support than for those given support by the same person throughout the social support trials.

It was speculated that perhaps the social supporter comes to be regarded as an alternate source of influence to the group. So the subject, rather than responding independently, may merely have followed the partner's lead on every trial. If this were true, by varying the social supporter, following behavior would be averted; the subject would have no single partner to follow. That is, the partner on one trial would be part of the opposing majority on the next. Thus, it is unlikely that some form of "apron-string" phenomenon accounted for the results in the Varied Social Support condition. As mentioned previously,no generalization effects were noted in any conditions. Thus,the predictions were not confirmed.

Surprisingly, conformity on generalization items in both Varied Social Support conditions was somewhat higher than in the comparable Consensual conditions, although this difference did not reach statistical significance. A possible explanation for this trend is that subjects in the Same Social Support condition may have perceived the first three members, who repeatedly responded unanimously, to be answering in "sheep-like" fashion. Such comments by subjects were noted in the post-experimental interview. By contrast, the group members in the Varied Support condition appeared to be more independent because they fluctuated from trial to trial in their agreement with the subject and with one another. In fact, they formed a consensus only on neutral trials where they gave veridical answers. It is likely that group consensus may have come to be associated with correctness. Thus, when the new type of item was introduced and the group—which hitherto had seldom been unanimous—showed consensus repeatedly, it proved very influential on the subject.

If the group in the Varied Social Support condition were perceived as both independent and credible because it achieved consensus only on neutral trials, one might expect that conformity could be reduced on generalization trials by eliminating neutral trials in the series. There is the added consideration, however, that excluding all neutral trials would severely reduce the credibility of the experimental situation overall.

Having discussed the four hypotheses of the study we now turn to broader issues.

According to the present state of the evidence, the conformity-reducing effect of social support seems to be a situation-specific phenomenon. There is evidence that social support reduces conformity both by lessening the anxiety experienced in social isolation and by providing the subject with an independent assessment of reality (Allen & Levine, 1968a). Crutchfield's (1955) contention that, when social support is not given, the subject reacts to the group pressure situation in a very differentiated way, appears to hold true in the case of independence produced by either social support (Allen & Bragg, 1968) or experimenter feedback (Allen & Lepinski, 1968). Contrarily, increased conformity produced by experimenter feedback did generalize to a different item-content on which it was not provided (Allen & Crutchfield, 1963). Why appropriate experimenter feedback leads to the generalization of conformity but not to the generalization of independence can possibly be explained in the following manner: Experimenter feedback supporting the group's responses provides evidence about social reality, which persists in the undisturbed situation in the form of the consensual group, after feedback is terminated. However, the termination of experimenter feedback disagreeing with the group results in a basic restructuring of social reality which then becomes entirely embodied by the consensual group. Thus, in one case, the situation is basically unchanged; in the other there occurs a basic restructuring of the situation.

Turning to the social support studies, it is conceivable that a partner answering prior to the subject, rather than producing a commitment to independent responding in the subject, habituates the subject to providing "social support" for any one else who defies the group. This implies that the present form of the social support experiment does not produce persons who are <u>independent</u> in the face of group pressure, but rather produces social supporters who are unwilling "to stick out their necks" by opposing the group alone. An experimenter possibly utilizing a social supporter to better advantage would have a person inquire in private prior to the group's response, how the subject was going to respond, and affirm his agreement with the subject's judgment. Then the subject in turn would make his response, thereby gaining experience in confronting the unanimous group alone. It is predicted that social support of this type would lead to independent behavior which might generalize to trials when the supporter did not consult the subject.

Allen and Lepinski (1968) found that subjects opposed by a unanimous group were independent when the experimenter provided supportive (correct) feedback on objective items. Unfortunately, independence was not sustained across different content when feedback was ended. Their experiment differs from the one proposed above in that supporting feedback was given publicly, whereas in the study proposed, support and termination of support would be a private experience. Furthermore, in the Allen and Lepinski (1968) study through the subject's expectancy of feedback from the experimenter, the experimenter in effect became another group member. As a result the subject did not have to answer alone in the group until the generalization items. And it is possible that this—the experience of answering independently alone in the group pressure situation—may be the crucial factor for producing independent behavior which persists across situations.

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V
SUMMARY

The present study was conducted to determine whether independence produced by social support provided on one type of task in a group pressure situation would generalize to a different task on which the subject was opposed by a consensual group. The experiment was designed to test some hypotheses offered to explain why generalization of independence across item content had not been obtained in a previous study (Allen & Bragg, 1968). It was hypothesized that generalization effects would be obtained if:

(A) The proportion of social support trials were large enough so that the subject would not fail to take note of them. It was proposed that this would lead to a cognitive restructuring of the situation which would result in independent behavior by the subject.

(B) The absolute number of social support trials were sufficiently large to create commitment to independent responding by the subject under conditions of group pressure.

Furthermore, in one condition the group member providing social support varies over trials. It was predicted that this would result in lower conformity than when only one person repeatedly agreed with the subject. This was expected on the basis that subjects would perceive group members to be inconsistent in their judgment. In addition, over trials subjects would be provided with several independent assessments of reality by which to validate their personal judgments. It was also hypothesized that there would be greater generalization of independence when the social supporter was varied. This result was expected on the basis that the social supporter usually becomes an alternate source of influence for the subject, so that she follows her partner's lead rather than behaving independently. In this condition, however, she would have no single partner to follow. On the other hand, if a subject actually responds independently in the presence of a partner, having had several different partners should preclude feelings of abandonment when social support is no longer given.

There were two series of stimulus items. In one series social support was given on all critical opinion items and a consensual group opposed the subject on all critical visual items. In the other series the opposite was true. Three conditions were established with each series of items:

(1) Consensus: no social support was given on any trials.
(2) Same Social Support: the group member answering fourth provided social support on one type of item.
(3) Varied Social Support: the group member providing social support on one type of item varied over trials.

The subjects were 180 female undergraduates who were tested in five-person groups using a Crutchfield-simulated group apparatus.

Results showed that social support, i.e., the presence of a partner answering immediately prior to the subject, significantly reduced conformity on both visual and opinion items. Type of social support was differentially effective only for opinion items. This was attributed to the fact that in matters of physical reality one reliable standard over trials is sufficient to validate personal judgments, but in matters of social reality, the greater number of independent assessments of reality provided over trials, the greater the subject's confidence in her judgments.

Generalization of independence from social support to consensual group trials was not obtained. Thus it was concluded that: (a) social support does not bring about cognitive restructuring of the situation leading to independent responding on the future trials, and (b) reduced conformity on social support trials does not produce a commitment to independent responding over trials, at least in the numbers provided in the present experiment. Because no generalization took place in the Varied Social Support conditions, it appears less likely that either following behavior on the part of the subject or feelings of being abandoned by a partner, fully account for the results.

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